RJC

Mailed certified 11/29/00

INTERMOUNTAIN POWER SERVICE CORPORATION

November 27, 2000

Richard Sprott, Acting Director
Division of Air Quality
Utah Department of Environmental Quality
P.O. Box 144820
Salt Lake City, Utah 84114-4820

ATTENTION: Nando Meli

Dear Acting Director Sprott,

Notice of Intent to Test Burn Alternate Fuel

The Intermountain Power Service Corporation (IPSC) is hereby submitting this Notice of Intent to use coke breeze as a supplemental fuel at the Intermountain Generating Station (IGS) located in Delta, Utah. IPSC is requesting a modification to our Title V Operating Permit, #2700010001 to allow coke breeze combustion with coal. The permit presently restricts our fuel choices to bituminous and subbituminous coal. Coke breeze is a direct derivative from various bituminous coals similar to current fuel characteristics. The IGS is a coal fired steam-electric plant located in Millard County as part of the Intermountain Power Project.

As required by Utah Administrative Code R307-401-2, the following information is provided:

(1) **PROCESS DESCRIPTION:** IGS is a fossil-fuel fired steam-electric generating station that primarily uses coal as fuel for the production of steam to generate electricity. Both bituminous and subbituminous coals are utilized. Fuel oil and used oil are also combusted for light off and energy recovery.

IGS already has in place bulk handling equipment for the unloading, transfer, storage, preparation, and delivery of solid fuel to the boilers. No changes of this equipment are required nor expected. Coal and coke breeze will be proportionately blended at low percentages using present equipment and procedures.

The use of coke breeze is not expected to change emissions. (Coke breeze is essentially bituminous coal with volatile material removed.) No changes in the usage of other raw materials or bulk chemicals are required nor expected.

REQUESTED CHANGE: IPSC intends to receive and combust several train loads of coke breeze each year at various blends with coal. The maximum combustion rate will be 20% coke breeze to 80% coal ratio. Coke breeze is a solid fossil fuel derived from coal. The initial source is expected to be Geneva Steel in Utah County.

850 West Brush Wellman Road, Delta, Utah 84624 Telephone: 801-864-4414 FAX: 801-864-4879

Comparisons of fuel characteristics (estimated) are described below:

	FUEL TYPE (approximate estimates)	
Parameter (units)	COAL	COKE BREEZE
Ash (%)	10	12
Sulfur (%)	0.55	0.65
Thermal (BTU/lb)	11900	11500
Chlorine (ppm)	310	230
Fluorine (ppm)	70	250
Antimony (HAP Metal) (ppm)	3.5	<4
Arsenic (HAP Metal) (ppm)	14.2	5.4
Beryllium (HAP Metal) (ppm)	0.45	<0.3
Cadmium (HAP Metal) (ppm)	0.52	<0.6
Chromium (HAP Metal) (ppm)	28.5	24
Cobalt (HAP Metal) (ppm)	3.1	4.2
Lead (HAP Metal) (ppm)	6.5	5.4
Manganese (HAP Metal) (ppm)	7.9	120
Mercury (HAP Metal) (ppm)	0.05	0.066
Nickel (HAP Metal) (ppm)	4.5	22
Selenium (HAP Metal) (ppm)	2.7	1.9

NOTE: Data provided for coke breeze are estimates only, based on available information. These are not limits, but arithmetic means bounded by wide ranges of concentrations that are dependent on fuel source and type. Solid fuels naturally have wide variability in characteristics. Characteristics specific to coke breeze burned at IGS will be sampled and tested at delivery. The analysis of coke breeze characteristics will provide more comprehensive data than provided above, including other constituents that may be present. The data collected will be used in determining annual emissions reported to your office. Please note that the values for the coke breeze concentrations are from limited data, but are within normal ranges for coal presently used at IGS.

(2) The expected composition and physical characteristics of emissions resulting from the use of coke breeze as fuel are expected to be unchanged from present emission composition and characteristics with regard to emission rates, temperature, air contaminant types, and concentration of air contaminants. The mass flow of chimney effluent may change proportionately with the fuel usage and combustion air to meet comparable heat input. The pollution control devices (PCD) include a fabric filter and wet scrubber.

The following emission rate parameters are provided as required:

Parameter	Before PCD	After PCD	Resulting Increase with Coke breeze*
Particulates	96,000 lbs/hr	50 lbs/hr	none
Nitrogen Oxides	0.41 lbs/mmBtu	0.41 lbs/mmBtu	none
Sulfur Dioxide	0.9 lbs/mmBtu	0.06 lbs/mmBtu	none
Temperature	325 F	120 F	none
Stack Gas Volume	130,000,000 scfh	130,000,000 scfh	none
Hydrochloric Acid	0.67 lbs/ton	0.02 lbs/ton	none
Hydrofluoric Acid	0.14 lbs/ton	0.004 lbs/ton	none
Antimony	0.007 lbs/ton	0.000008 lbs/ton	none
Arsenic	0.03 lbs/ton	0.00006 lbs/ton	none
Beryllium	0.0009 lbs/ton	0.0000005 lbs/ton	none
Cadmium	0.001 lbs/ton	0.00001 lbs/ton	none
Chromium	0.06 lbs/ton	0.0001 lbs/ton	none
Cobalt	0.006 lbs/ton	0.00001 lbs/ton	none
Lead	0.013 lbs/ton	0.00003 lbs/ton	none
Manganese	0.016 lbs/ton	0.00005 lbs/ton	none
Mercury	0.0001 lbs/ton	0.00001 lbs/ton	none
Nickel	0.009 lbs/ton	0.00005 lbs/ton	none
Selenium	0.005 lbs/ton	0.00065 lbs/ton	none

*NOTE: Annualized estimates, based upon average fuel concentrations, if a 20% coke breeze blend was burned continuously year round.

(3) Present pollution control equipment for combustion include dual register low NOx burners, baghouse type fabric filters for particulate removal, and flue gas desulfurization scrubbers. Baghouse filters operate at nominal 99.95% efficiency, wet scrubbers operate at nominal 90% efficiency. Control equipment for the handling and transfer of solid fuel include dust collection filters. No changes in the operation of the fabric filters or wet limestone scrubbers are required nor expected.

(4) The present emission point for the IGS boilers is a lined chimney that discharges at 712 feet above ground level (5386 feet above sea level). The chimney location is 39° 39' 39" longitude, 112° 34' 46" latitude.

(5) Emissions from boiler combustion are continuously sampled and monitored at the chimney for nitrogen oxides, sulfur oxides, carbon dioxide, and volumetric flow. Opacity is measured at the fabric filter outlet. Other parameters recorded include heat input and production level (megawatt load). Monitoring will remain unchanged. Other emissions not directly monitored are calculated using engineering judgements, emission factors, and fuel analyses.

(6) Operation at IGS is 24 hours per day, seven days per week. This will not change.

(7) No construction will occur to accommodate alternate fuels. Approval of this NOI is requested as soon as possible.

(8) No other specifications or related information will be available until after the test burn and measurements.

(9) IGS operates under a Title V permit (#2700010001). IPSC intends to continue to operate in full compliance with that permit and applicable requirements. No deviations from permit conditions are expected.

Applicability Determinations

New Source Performance Standards. IGS operates as a New Source Performance Standard (NSPS) power plant, regulated under Title 40 of the Code of Federal Regulations, Part 60, Subpart Da. A regulatory review of 40 CFR 60(Da) finds that the use of coke breeze as an alternate fuel does not fall under NSPS applicability as a modification. In fact, as a product of coal, coke breeze is already defined as a fossil fuel under Part 60. A modification is defined at 40 CFR 60.14 to include any change in operation of a source which increases the maximum hourly emissions of a Part 60 regulated pollutant above the maximum achievable during the previous five years. (See 40 CFR 60.14(h)).

Prevention of Significant Deterioration. It is not expected that a net significant increase will occur with the use of coke breeze. The expected characteristics of coke breeze so closely match those of our present fuel as to be indistinguishable from coal. Information will be collected during the use of coke breeze to make calculations for determining if a significant net increase in actual emissions is ever attributable to coke breeze. We surmise it is unlikely the use of coke breeze will trigger a review under PSD as a major modification.

Should you require further information to expedite the approval of this request, please contact Mr. Dennis Killian, Superintendent of Technical Services, at (435) 864-4414, or dennis-k@ipsc.com .

In as much as this notice of intent affects our Title V Operating Permit, I hereby certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Cordially,

S Gale Chapman

S. Gale Chapman
President, Chief Operations Officer, and Title V Responsible Official

RJC/HBI/db
Attachment

cc: Blaine Ipson
Bruce Moore, LADWP CES
Mike Nosanov, LADWP